



**SAMPLE FOUR-YEAR PLAN FOR ENGINEERING**

Updated: January 2011

- Note: 1) Students interested in a 2-2 pre-engineering curriculum follow Loras four-year engineering curriculum for first two years.  
 2) Engineering students are encouraged to complete internships or related work experience during summer months.  
 3) The Engineering program requires students to achieve a grade of C- or better in each of its program courses. These include all of the courses beginning with CHE, CIT, EGR, MAT or PHY.

**JANUARY TERM**

|  |           |
|--|-----------|
| <b>New students are required to complete a minimum of two January term courses.</b>                  | <b>CR</b> |
| <b>Students who transfer in 40 credits or more are required to complete one January term course.</b> |           |
| January Term - First Year  | 3         |
| January Term – Junior Year   | 3         |

**FRESHMAN YEAR FALL SEMESTER**

| Title   | CR | FRESHMAN YEAR SPRING SEMESTER Title                           | CR |
|---|----|---|----|
| LIB 100 : Modes of Inquiry                                    | 3  | EGR 106: Intro. to Engineering II                             | 3  |
| EGR 105: Intro. to Engineering I                              | 3  | CIT 115: Programming & Software Design Basics                 | 4  |
| MAT 150: Calculus I   | 4  | MAT 160: Calculus II  | 4  |
| CHEM 111: General Chemistry                                   | 4  | LIB 105: College Writing * <b>or</b> Lib 110: Public Speaking | 3  |
| LIB 105: College Writing * <b>or</b> Lib 110: Public Speaking | 3  | LIB 130 <b>or</b> LIB 135: Catholic Traditions                | 3  |

**SOPHOMORE YEAR FALL SEMESTER**

| Title                                       | CR | SOPHOMORE YEAR SPRING SEMESTER Title                       | CR  |
|---|----|--|-----|
| LIB 220: Democracy & Global Diversity       | 3  | PHY 224: Physics for Engineers II                          | 5   |
| PHY 223: Physics for Engineers I            | 5  | EGR 232: Engineering Dynamics                              | 3   |
| EGR 231: Engineering Statics                | 3  | EGR 236: Mechanics of Materials <b>or</b> General Elective | 3-4 |
| MAT 260: Analytic Geometry and Calculus III | 4  | MAT 310: Ordinary Differential Equations                   | 3   |

**JUNIOR YEAR FALL SEMESTER**

| Title  | CR | JUNIOR YEAR SPRING SEMESTER Title                          | CR  |
|--|----|--|-----|
| General Elective                                       | 3  | Advanced Gen. Ed. Elective **                              | 3-4 |
| EGR 335: Electric Circuits or EGR 342: Dynamic Systems | 4  | Advanced Gen. Ed. Elective **                              | 3   |
| CIT 225: Data Structures                               | 4  | Advanced Gen. Ed. Elective **                              | 4   |
| CIT 219: Computer Organization                         | 4  | EGR 333: Fluid Mechanics or EGR 334: Thermodynamics        | 3   |
|  |    | EGR 236: Mechanics of Materials <b>or</b> General Elective | 3-4 |

**SENIOR YEAR FALL SEMESTER**

| Title  | CR  | SENIOR YEAR SPRING SEMESTER Title                   | CR |
|--|-----|---|----|
| Advanced Gen. Ed. Elective **                          | 3-4 | EGR 491: Senior Capstone Eng. Design II             | 4  |
| EGR 342: Dynamic Systems or EGR 335: Electric Circuits | 3   | EGR 489: Engineering Review and Assessment          | 1  |
| LIB 305: Portfolio                                     | 1   | EGR 334: Thermodynamics or EGR 333: Fluid Mechanics | 3  |
| EGR 490: Senior Capstone Eng. Design I                 | 4   | General Elective                                    | 3  |
| EGR 488: Engineering Topics and Review                 | 1   | Advanced Gen. Ed. Elective **                       | 3  |
| General Elective                                       | 3   |   |    |

\* ENG 111 Critical Writing may be taken in place of LIB 105

\*\* Courses taken as Advanced Gen. Ed. electives must include one course from each of the following categories:

Aesthetic Dimension (AA), Cultural Traditions (AC), Humanity in the Physical Universe (AH), Identify and Community (AI), and Values and Decision Making (AV). Additionally, two of these Gen. Ed. courses must be completed as cross registered cluster courses taken during the same semester.